SUMMER NEWS LETTER ☆ AUGUST, 1952

ANNS Western Division Summer Meeting

During four days Oregon forgot its propensity for rain and provided perfect weather. With this augury of good things to come an enthusiastic group of naturalists met in Corvallis, June 16-20 for the fourth annual meeting of the Western Division of the American Nature Study Society. The program published in the previous issue of the NEWS LETTER was carried out with only minor changes.

President Stanley Mulaik was in evidence throughout the meeting recording bird songs or spotting a particular bird and letting us take turns listening with the ear phones. In turn, Kenneth Gordon stole the show with his miniature dioramas of prehistoric animals made to scale and represented in their correct ecological setting. The plants were most amazing and botanists had fun finding out what parts of plants had become flowers or trees or grasses under Kenneth's skillful and artistic hand. The live moss exhibit that was prepared by Anna Pechanec attracted so much interest that we managed an extra evening meeting of about an hour and a half to study it and an attractive collection of dried mosses made by Ben Pruitt.

All felt that our symposium on wilderness was outstanding. Olaus Murie, President of the Wilderness Society, had a tight schedule since he spoke in Glacier National Park on June 16 and in Corvallis on June 18.

Our joint sessions with the Ecological Society, a field trip to the coastal dune country and a symposium on Douglas fir, were particularly interesting and profitable.

Those of us who were on the committee had our fingers crossed all the time about the early morning trip to Mary's Peak. Would people get up that early? Would the miracle happen and the weather be warm and the skies clear? Would we be able to estimate the number so our Obsidian friends could have enough food prepared?

The morning turned off cool and windless with a high fog over the Willamette Valley and fog filled all the valleys in the Coast Mountains. The upper part of Mary's Peak lay in warm sunshine and the view over the fog-filled valleys aroused a lot of shutter happy photographers. Members, guests, and Obsidians numbered about a hundred, a good double the number that was anticipated. But the Obsidians flipped a multitude of blueberry hotcakes and fixed a special plate for Ruth Hopson, garnished with candle, verse, and song in honor of her birthday. Among our guests were Kirtley Mather, retiring president of the A.A.A.S., Olaus Murie, president of Wilderness Society, W. P. Taylor, National Wildlife Federation, and F. W. Went, California Institute of Technology. After breakfast the group

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A Letter from Spain

Jerez de la Frontera, Spain

You will recall that in a previous note to members of the American Nature Study Society I remarked that there seems to be an invisible line across Europe, south of which (in the Mediterranean belt) the interest in birds and other wild things is purely gastronomic, while north of that line there is a very different point of view.

While driving into Spain with my French friends we had a provocative discussion about this. One contended that there was perhaps some blind spot in the Latin mind to account for the meager interest in wildlife and its conservation. Professor Bourliere of the Sorbonne disagreed. He thought it was largely a matter of education and he pointed to the recent increase of interest in France and the number of recent books.

Today on the great rolling plains of Andalucia after an unforgettable experience with Great Bustards I had a similar discussion with a young Spanish ornithologist, Mauricio Gonzalez Diez. As we jogged along on muleback he turned in his saddle and asked "Why is it that when an Englishman comes to us he knows the names of every bird and most every flower? He is interested in them all. It is different here in Spain. Do you think there is some fundamental difference in the Latin mind?" I said I did not think so; that it was probably a matter of education. I told him of the discussion among my French friends. He was silent for a few minutes, then said that if only there were a simple book in Spanish that would give pictures and the names of birds it would help. One cannot take much interest in a thing if he does not know its name. He added "It is the first step."

This is just a thought for those in the educational field who insist that we should ignore names, that they are unimportant in teaching nature study along ecological lines. True, it is the unit that counts, but I insist beginners must have names or handles first if they are ever to reach the level of integrated thinking at which we have finally arrived. A beginner cannot start there. As in all evolution, which must retrace the primitive stages, in nature study we must start with names and recognition. Dr. Maurice Brooks of the University of West Virginia points out that every good ecologist he knows began as a bird watcher, a butterfly collector, a herpetologist, or a botanist, interested in specific things. Not one started as a full blown ecologist.

— Roger Tory Peterson

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ANSS News

FRANCES GILLOTTI of Danbury, Conn., is a member of the educational staff of the Massachusetts Audubon Society. She directs special nature programs for mental patients at Westboro State Hospital, Westboro, Mass. During the summer of 1951, Frances directed a mobile unit of Senior Girl Scouts on a pioneer camping trip through New England and Canada.

HELEN ROSS, our capable secretary, is teaching Nature Study at Georgia Teachers College, Statesboro, Georgia, during the 1952 summer session. This explains the change in mailing system used for this issue. At a cost of a two cent stamp for each NEWS LETTER and a little extra work on the part of editor and secretary we hope to make the deadline.

RALPH RAMEY, JR. was called into service by Uncle Sam to teach the basic principles of biological warfare to officers and enlisted men at the Fourth Army Chemical School, Fort Sam Houston, Texas. During a long weekend John visited the Aransas Wildlife Refuge. The first week in June found the Rameys in Mexico. The Rio Corona afforded a highlight of the trip — sights and sounds of their first wild parrots. John's advice to anyone going to Mexico is "Do not choose Matamoras as a point of entrance." According to his log, the road from Matamoras to C. Victoria "cost us three tires and many hours plus achin' backs and heads."

ALLAN AND HELEN CRUICKSHANK spent April and May in the environs of Tallahassee, Florida making a movie of the Wakulla River for the Audubon Screen Tours. Some of Allan's 4 x 5 color photographs have been enlarged by Eastman Kodak for a big photo show in GRAND CENTRAL STATION in NEW YORK. Floridians are happy to add the Cruickshanks to their list of permanent residents. They are building a home on their favorite Florida spot — Rockledge, on the banks of the Indian River and in field glass distance of Merritt Island.

ROGER PETERSON returned to England the first of July. Among the places he plans to visit during the remainder of the summer is St. Kilda, off the Hebrides, where he expects to see a *million* Puffins.

JOHN WANAMAKER, Professor of Biology at Principia College, Elsah, Ill., traveled south to the Okefenokee Swamp in Georgia with a group of ecology students. John believes in getting his ecology first hand and encourages his students to do likewise.

DICK AND FLORENCE WEAVER are leaving Raleigh, N. C. for Ann Arbor, Michigan where Dick will be working in the department of conservation at the University of Michigan.

EDWIN WAY TEALE has completed his new book *Green Treasury, A Journey Through the World's Great Nature Writing*. You can expect it from the presses of Dodd, Mead and Company around the first of October. The book will run to around 600 pages and the price will be $5.00. From the samples Ed has given us in the past, we anticipate much pleasant, stimulating reading from the 180 selections — representing 85 nature writers — included in this book.

If you have missed *North With the Spring* you are apparently in a minority group — those who have not traveled *North* with Teale. The book is now in its ninth edition — better than an edition a month since its publication date. It is to be published abroad next year. Nellie and Ed are starting out the first of September to follow the autumn from Cape Cod to California. They plan to be gone five months and their trip will include every state west of the Mississippi. We hope this trip will produce another volume comparable to *North With the Wind*.

THIS SPACE IS BLANK BECAUSE *YOU* FAILED TO WRITE THE EDITOR OF YOUR ACTIVITES.

Color Photography for Amateur Naturalists

by HELEN GERE CRUICKSHANK

There must be a million or more 35mm cameras in this country that have good enough lenses and shutters of sufficient precision to turn out color photographs of professional or near-professional quality. And before the owners of these cameras lies a range of subjects as wide as the world with adventure on all sides.

These fine little cameras, compact, light in weight and sheared of gadgets can be carried to the top of mountains and into remote places without adding much burden to the owner. They are perfectly at home in the backyard as they are in far off places. Yet these small cameras have been woefully misjudged and misused. Advertised as 'candid cameras' they are pointed right and left, the trigger clicked merrily with little thought and literally miles of film are wasted in them each year. I remember one instance of a distinguished camera club on an outing. Photographers whose names are known around the world took along their equipment and with their large cameras mounted on tripods they painstakingly composed photographs of real excellence. Yet those same photographers snatched up 35mm cameras and with them shot as carelessly as beginners and obtained results even a beginner would not have cherished. Naturally enough photographs taken without care are usually poor, a waste of film and a travesty of what can be the finest kind of sport.

These small cameras not only can add intense pleasure to time spent out of doors but they can open eyes to new beauty of color and design even as they help the photographer to make original observations on wildlife actions and life cycles. Moreover, since color film has no grain, it overcomes the biggest disadvantage of a small surface one meets in b'ack and white photography. The 35mm color films can be projected on large screen both for pleasure and instruction.

The excellent photographs 35mm cameras are capable of producing do not fall like ripe plums into the hands of the photographer. They require a thorough knowledge of the camera, familiarity with the film and infinite care and patience in photographing the subject. All this should be flavored with knowledge of the subject itself. Right here is a special bonus for the photographer. Thoroughly as he may know the subject of his photograph, it is almost impossible to give the thought necessary to make a really good photograph without adding something to that knowledge. But any amateur willing to

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TRENDS IN RESOURCE USE THINKING IN THE SOUTHEASTERN UNITED STATES*

by ROBERT D. BINGER

Resource-use thinking has gone through two distinct phases. It is now in a phase accepted by some and rejected or unknown by others. These phases* in sequence are: (1) preservation, mistakenly called conservation, (2) restoration, and currently, (3) management. Through misuse these terms have become cliches. Therefore it is best to analyze each in its turn.

PRESERVATION, as the name implies, refers to measures taken to save or preserve for future use resources which are rapidly dwindling or practically gone. The term hoarding is an apt synonym. Vast forest areas have been set aside destined never to feel the cut of an axe; wildlife refuge areas have been established and the ordinary citizen excluded from them. In many other ways our resources have been set aside in protected areas in order that some few of the many rich blessings this land possessed might be saved for posterity. Much money, time, and energy have been spent to establish parks and reserves. Fierce opposition had to be fought. The spirit of exploitation, the feeling of conquest of the new lands were still in man's mind. When the parks and forest and game reserves were established, the thinking followed these lines: (1) let nature take its course; let nature alone and we will once again have our bountiful heritage; (2) enjoy, but do not destroy.

The time came when those concerned had to answer in the negative, the questions: "Has the policy of preservation worked? Has it been sufficient?" Natural plant succession changed habitats so that the desired animals no longer were found. Hardwood forests encroached into the pine forests. Areas protected from fires and timber removal were virtually burned to the ground when fires did occur because of the thick, close undergrowth. Evidently a new approach was needed.

As previously stated, the term conservation was used in reference to these preservation measures. This is unfortunate for it has given an incorrect connotation to the term. Actually conservation should refer to a more inclusive concept which encompasses all measures taken in the use of resources.

RESTORATION was the next theme. As it became apparent that desired animals and trees were not returning as a gift for letting Mother Nature have her way, measures were suggested to restore desired resources. The suggestions were such as these: If pine trees are needed, let us plant pine trees; if ducks, quail, turkeys, and fish are scarce, let us restock the areas in which they once existed; let us also restore the habitats so the animals may have natural food and shelter. These measures and similar ones were carried out in the hope that we would once again have an abundance of wildlife, timber and other raw materials. Years passed and restored habitats were again changed by natural plant succession. Undesired trees crowded out desired ones. The animals disappeared and in their places were found others more suited to the changed habitats. Desired animals were restocked again and again only to fall prey to predators or starve to death. In many cases overstocking resulted in starvation and stunting of growth. Some of the more progressive minded leaders saw that further measures were needed. However, others have never gotten past the stage of restoration in their thinking. They still carry on a restoration program in which nature is to take over to finish the job.

MANAGEMENT may be considered as the necessary element to complete the picture, the adjustment needed to bring everything into a clear focus. In simple terms, management is the wise use of all our resources. It includes preservation (where necessary), restoration, and a complete utilization of all available resources. Specifically, it refers to such measures as maintaining habitats suitable to certain wildlife, keeping down hardwood growth to maintain a pine forest, and successfully combining farming with a planned wildlife crop.

Many examples of proper management can be found in the Southeast. Deliberate attempts are made to attract as much wildlife as possible to the farms without adversely affecting the economic value of the agricultural endeavors. Ponds which pay for themselves as a water supply for cattle also provide facilities for boating, fishing, swimming and the study of water life. Numerous useful and beautiful trees are left in pastures providing the dual benefits of shade for cattle and nesting places for some birds or hiding places for others. Scientific methods are employed in the cultivation of crops with amazing increases in yield

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* From the Bulletin on "Conservation Material for Teachers of the Southeast," produced during a summer workshop conducted by the School of Education, Florida State University, Tallahassee, Florida.

*Nature Develops a Climax Forest**

by ELTON EASON

Nature "seeks" a balance between living things. The study of this balance is called *ecology*. An area no longer in cultivation will serve effectively to show nature's method of obtaining this balance. When man cultivates land the soil is laden with seeds of annuals, biennials and perennials of various kinds that never establish themselves due to conditions of cultivation. If cultivation is discontinued, these seeds will germinate and establish themselves in great numbers. The growth development which follows, if unmolested by man, will ultimately attain a forest condition where a few plants will live and grow in a state of harmony. Development of this type is called plant succession.

A tremendous number of conditions is involved in determining the rate and direction of succession. Therefore, any discussion that ignores consideration of all factors is fallacious. I shall assume that certain factors are controlled in order to illustrate the operation of general principles of succession.

Annuals are plants growing from seeds and living one year. Biennials are plants growing from seed and living two years — maturing the first year, and bearing fruit the next. Perennials grow from seed and live from year to year. During the first year of succession, annuals and biennials, such as ragweed and partridge-pea, cover the area. Toward the latter part of the year occasional single-stemmed plants of dog-fennel appear in the growth. In the next two years there will be a marked change in the physical appearance of the area. Broom-sedge, as well as a more abundant supply of dog-fennel will have established themselves. Broom-sedge and dog-fennel are modified perennials that die to the ground each year. New growth in the spring is from the old root stock. Perennials have more highly developed root and shoot systems than have annuals and biennials. Therefore, the perennials are able to put on new growth each year, while the annuals and biennials must develop periodically from seed.

As annuals and biennials cannot compete with the more highly developed perennials, they will not survive except in small areas unsuitable for perennial growth.

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NATURE DEVELOPS A CLIMAX FOREST

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While herbaceous perennials are forcing out their predecessors, they themselves must yield to woody perennials whose root and branch systems, by yearly growth, are able to reach greater depths and heights than the dog-fennel and broom-sedge plant association. (The term *plant association* is used to describe a group of plants living together. The dominant species name the association.)

The woody perennial destined to dominate is the pine. In infancy pine growth is dense. This thick growth in numbers combined with the stem and leaf structure reduces the intensity of light reaching the forest floor. Consequently, the dog-fennel and broom-sedge succumb. The thick growth of the pines enables them to dominate the area for many years. Eventually, the fight among themselves for sunlight, combined with natures' fires, will thin the forest sufficiently to allow perennial undergrowth of hardwood to develop.

Questions might be raised: Why does perennial undergrowth of hardwood develop? Should not one expect new pines to grow? The answer seems to be that young pine trees will not develop in their own shade. This shade, however, is favorable to perennial hardwood growth. Therefore, perennial hardwood will eventually dominate the forest.

Further forest succession will take one of two directions, depending largely on the intensity of fires which will occur.

Certain background information is helpful in explaining the role of fire in plant succession. Having a thick bark, pines are able to withstand greater intensities of fire than hardwoods. Different species of hardwood vary in ability to withstand fire.

Mild fires, or an absence of fires, directs the pine forest quickly to a pine — red-oak — laurel-oak association, with hickory added later. More intense fires allow only the thick-barked pines to survive. The association's future growth will be pine — red-oak — post-oak — black-oak and hickory. Abundant undergrowth of herbaceous perrenials render this association less susceptible to destructive fires than was its predecessor.

Succession beyond the pine — oak — hickory association is extremely slow. Unmolested long enough (perhaps 150 years), the pine — oak — hickory association would be replaced by a climactic magnolia — beech association. This association is sometimes observed along river and creek beds where man's intervention has not occurred.

Succession is nature's method of reforestation. The progression of succession from a fallowed field to a climax magnolia — beech forest produces a series of temporary environments. Each environment has an association of 'life' peculiar to its stage of development. Within any given association many factors could be found to show inter-relation of individuals. A common factor is food.

A spot on the school grounds, or any fallow field, will usually show succession in its infancy. Pupils and teachers can see practically all stages of succession by observing the plant life seen from the highway. Within a single mile it is possible to see succession expressed as: a patch of herbaceous perennials; young hardwoods appearing in a sparse growth of pine; thick pine growth dominating other perennials; and areas where destruction by fire has permitted only pines to survive.

The nearest rough-barked oak affords excellent lessons on the inter-relation existing between plant and animal life. Living on a single oak, it is possible for one to find the four major groups of plant life:

(1) Thallus plants — algae, fungi, lichens.
(2) Mosses — true mosses, liverworts.
(3) Ferns — resurrection ferns.
(4) Seed bearing plants — spanish moss.

These plants are using the oak tree to obtain mineral matter. The rough bark enables them to cling to the tree while they manufacture their own food. By examining limbs, stems, and leaves, pupils can find insect galls. These galls are abnormal growths stimulated by hormones from insects. The larvae of these insects use the gall tissue for food.

The example given is one of a wide range of activities that will show *ecology* at work on the school grounds.

Making Aquaria from Water Bottles

Many schools or business firms have discarded five gallon water bottles which can be converted into attractive aquaria. Gallon jars will serve for small, individual aquaria. The directions given below, accurately followed, have proved successful in removing the top from a bottle.

1. Remove the stopper from the bottle and clean well. At the desired level for the top of the aquarium make a straight line around the jug with a triangular file or a glass cutter. File over the line several times.

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ANSS WESTERN DIVISION SUMMER MEETING

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climbed to the lookout cabin on the top of the peak where Ewart Baldwin described the geology of the Coast Range.

Wednesday night many of us joined the Ichthyologists and Herpetologists in a delicious salmon barbecue prepared by members of the Oregon State College Fish and Game Department.

Our sessions ended Thursday night with a business meeting and a showing of colored slides by members.

Officers for next year are: President, Ruth E. Hopson, General Extension Division, Eugene, Oregon; Vice-President, Richard Miller, Long Beach State College; Secretary-Treasurer, Gunar Fagerland, Olympic National Park; A.A.A.S. and Western Representative, Stanley Mulaik, University of Utah.

Next year's meeting will be in Santa Barbara.

TRENDS IN RESOURSE-USE THINKING

——— continued from page 3 ———

volume and improvement in quality of products. Timber is cut and sold at various times. In many instances the cutting is limited to mature, defective, or crowded trees. In other cases timber is considered a crop and the trees are harvested as they reach the proper size for pulpwood or lumber.

Those who have known the Southeast over a period of twenty years realize a revolution is in progress. The thinking and practices are vastly different from ideas of the past. Concern is shown for all types of resources — including human and social. There is little *useless* preservation or aimless restoration; instead we find full and wise use of the resources at hand in the production of desired crops, domestic animals, trees and wildlife. Concrete demonstrations of a positive approach to resource-use are easily found. Positive steps have been taken to solve problems arising from man's relationship with his environment.

When we look at the overall picture it is evident that a comprehensive viewpoint of the resource-use picture must include wise management on the part of man. Nature will not always follow the course we desire.

*Using the Group-Unit Method Democratically**

by FLORENCE WEAVER

All too often our pupils are well trained to do only a certain few pages or problems which the teacher plans, the teacher assigns, and the teacher checks. Pupils are seldom given any responsibilities. Those who suffer most from such methods are our superior and exceptional children. They have lost their desire to learn by not being given responsibilities and by not being challenged to think. They are satisfied with far less than their best efforts and have become "problems."

I like to think of a Unit as a comprehensive piece of work inclusive enough to consume anywhere from two to six weeks of school time. The time spent will vary greatly. In the progress of the Unit, the children will be concerned with English as it arises as a normal part of the work, they will have many occasions to do arithmetic and spelling, they will write letters for information.

In our democratic American life, it is becoming increasingly necessary for people to learn to work together. If we are to better prepare our pupils for life, our schools should use life methods so that year by year our pupils learn better to get along with others. This will carry over to help solve many of our current social problems. If pupils learn how to get along with others, perhaps we will have fewer divorces, fewer mental cases, fewer lonely people, and fewer problems of many kinds in schools and out.

Some of the values of Group-Unit work done on a democratic basis would be:

(1) Children work to answer problems.
(2) They share materials.
(3) They learn democracy by living it.
(4) They can work on various levels.
(5) These methods develop leadership.
(6) Homework grows out of classwork.
(7) They bring in resource people.
(8) They do research.
(9) There are opportunities for experiments with simple equipment.
(10) Children share in setting up requirements and share in choosing Units.
(11) Children talk about school work with others of their own age.
(12) It gives children an opportunity to move about and to learn good behavior because it is a necessity that they move about.
(13) They learn personal independence; also independence of the teacher. They seek aid from their classmates.
(14) You have a true audience situation.
(15) Oral reading is purposeful.
(16) Notebooks have a real purpose; they are in constant use.
(17) Leaders take responsibility to see that all in the group contribute; leaders and groups set up the requirements.
(18) There is much carry-over of democratic ideas into other school work, and into the home and community.
(19) Every individual has many opportunities to contribute to the class in many ways.
(20) Children bring tools, equipment, supplies, volunteer transportation. They almost do things in spite of you.
(21) Children have a sense of belonging. This is especially good for the children with less ability.
(22) Other pupils help those with less ability.

When children have the privileges of democracy in the classroom, it is unlikely that they will listen to the teachings of any foreign power that might try to undermine our democracy.

* From a paper presented at a joint session of the Science Teaching Societies of the AAAS in Philadelphia, Dec. 28, 1951.

Nominations Requested

All members of ANSS are eligible to make nominations for the officers to serve the Society in 1953. This is your opportunity to express your feelings concerning new officers.

Officers to be elected are: *President, Vice - President, Secretary, Treasurer, AAAS Representative,* and five *Directors.* Send your nominations to Helen Ross, State Teachers College, Fitchburg, Mass. If you are prompt in making your nominations, the Fall NEWS LETTER will carry a sketch of the nominees.

Conservation Militant

Conservation Militant, a new unit under the direction of Guy Atherton, pledged to work for better game management, has just published a survey of the mourning dove in the 28 states where it is hunted. Copies can be obtained by writing to CvM, Box 72, St. Paul 2, Minnesota. Printing expenses are high, and it is suggested that postage be enclosed with the request.

ANSS Members Elected to Linnean Society

Allan D. Cruickshank and Roger Tory Peterson were elected fellows of the Linnean Society of New York. The citation reads: "For distinguished contributions to Ornithology and service to the Society."

The Society is to be congratulated in the addition of two such outstanding members to its roster.

Roger Tory Peterson Honored

Roger Tory Peterson returned from England in late May to receive the honorary degree of Doctor of Science from Franklin and Marshall College at Lancaster, Pennsylvania on June 6.

Our congratulations go to Roger, to ANSS as it basks in reflected glory, and to Franklin and Marshall College in gaining so distinguished an alumnus.

Are You in Dead Storage?

What is your standing with our treasurer? Are you up-to-date with your dues? Is your name and address correct on this issue of the NEWS LETTER?

We have requests for the use of one issue of the News Letter for the publication of the ANSS membership — names and addresses. If changes should be made in your name or address write the treasurer. With your cooperation, we hope to have a list available for publication in the winter issue of the NEWS LETTER.

MAKING AQUARIA FROM WATER BOTTLES

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2. Fill the jug with tap water to the *filed level.* DO NOT LEAVE THE STOPPER IN THE BOTTLE.
3. Wrap six turns of grocery string around the jug *one inch below* the filed level.
4. Using a piece of cotton, soak the string with wood alcohol.
5. Light the string with a match. STAND AWAY FROM THE BOTTLE.
6. When the fire has burned out and the glass has cracked, lift off the top.
7. When glass is cool, the rough edge may be beveled with a file and smoothed with emery or sand paper.

COLOR PHOTOGRAPHY FOR AMATEUR NATURALISTS

——— continued from page 2 ———

bring to a focus those essential ingredients for making fine photographs can surely do it.

In a wildlife photograph, the chief subject whether a flower, a tree, an insect, a fish or a bird must be large enough to show considerable detail. Therefore one must move in close to the subject. This can be done in various ways. The less expensive cameras have fixed lenses. To get really large images of small subjects, it is necessary to place an auxiliary lens (usually called a portrait lens) over the fixed lens. Then one can work at a distance of eight or ten inches from the subject. It is necessary to measure the distance between the camera lens and the subject with great care. A steel tape measure is useful to owners of these fixed lens cameras.

The next class of cameras has removeable lenses. With them the photographer has two choices. He may use a telephoto lens which permits him to work at some distance from his subject and still obtain a large image but such lenses are expensive. A much cheaper method is to buy tubes in which the standard lens is screwed. By various combinations of tubes it is possible to make photographs of about natural size.

For really successful closeups (and almost all nature photographs belong in this group) a tripod is a necessity. A very light one is usually adequate for 35mm cameras. But do not choose a tripod until you are convinced that you can make exposures of a full second or more with positively no vibration. A tripod contributes two definite factors toward good photographs It holds the camera firmly no matter what the length of exposure and enables you to make the best possible composition. But every bit as valuable as its steadiness is the fact that one cannot make a 'snap-shot' when a tripod is involved.

Making snap-shots is the fastest way known to waste costly film. The very act of placing the camera on a tripod consumes time and gives one a moment to calm down, overcome the tendency to 'snap' and begin to think. As soon as you begin to think, you lay the foundation for a really good photograph.

Once the camera is on the tripod, you must decide which angle of the subject will show best its characteristics. You make sure the background tells an honest story. You surely would photograph a Monarch Butterfly larvae on milkweed and not on dogwood. You must make sure your source of light permits the use of the desired position and if necessary, shift the camera or subject until the two elements are correlated. You make sure that you are working at a distance from your subject that will give you the most desirable image on your film. Don't hurry for if you do you will only spoil film.

Having composed your picture with care so that the size of the subject is good and its distinctive characteristics are clearly visible you must either measure your distance exactly or focus sharply. Naturally those with a ground glass focusing arrangement are more assured of a sharp, well composed photograph than those who must measure the distance and guess at parallax adjustment but I have seen so many excellent nature photographs made by the latter method that no one should alibi poor work for lack of a ground glass. When ground glass for focusing is present, an end torn from the color film box and placed directly in front of the subject is an aid for the clear cut type helps one make a crisp focus.

Finally with the help of a light meter or careful comparison of the subject and light with the exposure suggestions that come with each box of film, decide on the LONGEST exposure you think possible to use without danger of movement in your subject. The long exposure permits you to close your diaphram and the smaller the opening, the greater your field in focus. The closer you work, the more care you must take in getting a sharp image of your entire subject. Always focus on the eye and then close down to bring the rest of the subject into focus. Patiently waiting for them to become quiet, I have made exposures as long as a second of frogs just so I could close the diaphram to f24 or f32.

There are few activities that add more to one's enjoyment of the out of doors than photography. The care necessary to make good nature photographs is a challenge of skill. It stimulates one's desire to learn for knowledge of the subject plays a large part in a successful photograph. A new appreciation of color, design and habits grows with the necessarily intimate study of the subject. So don't use that fine little precision instrument, the 35 mm camera, for 'candid shots'. Polish up the lens, load it with color film, take your tripod and begin a collection of photographs of your favorite subjects. Your hours in the field will become genuine adventures into the unknown.

Are You a Hoarder of Frozen Food Boxes?

Are the shelves in your kitchen cabinet filled with boxes which long since gave up their contents of peas, lima beans and broccoli? Have you plans for their use or are you going to continue to increase your cache until the opening of your cabinet door produces a "Fibber McGehee closet scene?" Just before reaching the "bulging door" stage, I was "struck" with an idea: Why not use them for insect collections? They are just the correct depth for insect pins; they can be closed securely for fumigation; they are easily stored when not in use; the outside of the box lends itself to desirable written descriptions; the size is adequate for life history collections; the insects can be removed for careful study. Preparation of the container requires little effort and less material. Place two pieces of cardboard from a corrugated box in the bottom of the frozen food box — this makes for easy, secure pinning. To improve the appearance, and give greater contrast, place a piece of white paper over the corrugated board.

Fall is a good season for insect study. Unload that kitchen cabinet of frozen food boxes and begin on a meaningful insect collection. Open the drawer where you keep those discarded rubber bands and slip one around each box after your specimens are mounted.

Did you know that nail polish remover is good for poisoning insects? Do you have directions for making an insect net from a broom handle, a coat hanger and a discarded kitchen curtain? Would you like to see a "Helpful Hints" corner in the NEWS LETTER? Are you ready to pass along suggestions you have found helpful? If we can do these things we will supply some of the needed information requested by many ANSS members.

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